

DETAILED ACTION

EXAMINER'S AMENDMENT

1. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

The application has been amended as follows:

a. Please cancel claims 20-23, 26.

Priority

2. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Election/Restrictions

1. This application is in condition for allowance except for the presence of claims 20-23, 26 directed to non-elected species without traverse. Accordingly, claims 20-23, 26 have been cancelled.

Allowable Subject Matter

2. Claims 1-19, 24-25 are allowed over the prior art of record.

3. The following is an examiner's statement of reasons for allowance:

Regarding claim 1 the prior art fails to disclose or make obvious a defect inspecting apparatus having signal, and a side-directed detection optic system, having a side-directed image-forming optic system for forming an image through condensing side-directed reflected/diffracted lights emitted from said inspection target substrate into a direction inclined so as to flatly intersect said illumination light beam, and a side-directed photo-detector for receiving an image of the side-directed reflected/diffracted lights, which is formed through said side-directed image-forming optic system; an A/D converter for converting the upper-directed image signal obtained from the upper-directed photo-detector of said detection optic system into an upper-directed digital image signal, and for converting the side-directed image signal obtained from said side-directed photo-detector into a side-directed digital image signal; and a signal processing system for detecting defects upon basis of each of the digital signals converted within said A/D converter, and in combination with the other recited limitations of claim 1. Claims 2-19 are allowed by the virtue of dependency on the allowed claim 1.

Regarding claim 24, the prior art fails to disclose or make obvious a defect inspection method having the steps of a first step for irradiating an illumination light beam upon a surface of an inspection target substrate, having circuit patterns thereon, by an illumination optic system, condensing reflected/scattered lights generated from said inspection target substrate irradiated through an objection lens, so as to form an image thereof through an image-forming system, receiving the a second step for irradiating illumination light beam upon a surface of a transparent film on the inspection target substrate through said illumination~ optic system at a predetermined inclination angle thereto, condensing reflected/scattered lights generated from said inspection target substrate irradiated from a direction inclined so as to flatly intersect said illumination

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direction, by means of the image-forming optic system so as to form an image thereof, receiving said reflected/scattered lights forming the image thereof upon a photo-detector, so as to convert it into a second image signal, and thereby detecting defects lying on the surface of the transparent film on said inspection target substrate upon basis of said second digital image signal converted, and in combination with the other recited limitations of claim 24. Claim 25 is allowed by the virtue of dependency on the allowed claim 24.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael P. Stafira whose telephone number is 571-272-2430. The examiner can normally be reached on 4/10 Schedule Mon.-Thurs..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tarifur Chowdhury can be reached on 571-272-2800 ext. 77. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Michael P. Stafira/
Primary Examiner
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April 9, 2008